REMARKS:

Applicants, their principal representatives in Germany, and the undersigned have carefully reviewed the first Office Action on the merits of June 25, 2009 in the subject U.S. patent application, in which the time for response is being concurrently extended for one month, or until October 25, 2009, together with the prior art cited and relied on in the rejections of the claims. In response, the Substitute Specification, drawings and claims of the application have been amended. It is submitted that the claims now pending in the subject application are patentable over the prior art cited and relied on, taken either singly or in combination. Reexamination and reconsideration of the application, and allowance of the claims is respectfully requested.

The Substitute Specification of the subject application is quite lengthy and there are 14 sheets of formal patent drawings. While all of the Substitute Specification, and all of the drawings are of at least general relevance to the claimed invention, as recited in currently amended independent claims 47 and 52, it is believed that certain portions of the Substitute Specification and of the drawings are more relevant than others. It is believed that the following discussion, taken in combination with a review of the particularly relevant portions of the Substitute Specification, and the drawings, will be of assistance to the Examiner in facilitating a better understanding of the claimed invention.

As may be seen in Fig. 1, there is provided a web-fed rotary printing press that includes a plurality of offset printing units, generally at 300. These offset printing units are usable to imprint various colors of printing ink to a web as the web is caused to

travel through the printing press. One of the printing units is depicted schematically in Fig. 3. It includes a pair of opposing transfer cylinders 303 which form a printing nip and between which transfer cylinders a web of material, which is to be printed, passes. The transfer cylinders 303 are provided with ink images from the plate or forme cylinders 304. Each such forme cylinder 304 carries one or more printing plates or formes. These are provided with ink and typically also with a dampening fluid, such as water. An inking system 305 provides the ink. A dampening system 306 provides the dampening fluid.

The inking system 305 is described in detail in the Substitute Specification, generally starting at paragraph 046. During a review of that discussion, it was noted that the use of the terminology to describe various rollers in the inking system was not consistent. An effort has now been made by the undersigned to ensure that the terminology used in the description of the inking unit and the dampening unit and their various rollers is consistent throughout the Substitute Specification. This has given rise to a large number of changes being made in various paragraphs of the Substitute Specification. While these changes are quite numerous, they are not of a substantive nature. For example, in certain locations, an element is referred to as a roller while at other locations, it was referred to as a cylinder. In other instances, various rollers were not identified with sufficient specificity to distinguish them from other rollers. It is believed that the proposed changes to be made to the Substitute Specification will rectify these matters, all without the addition of any new matter.

During the review of the Substitute Specification and a comparison of the discussion of the invention with the depiction of the invention set forth in the drawings, it

appeared to the undersigned that several lead lines were incorrect. Specifically, the lead line for element 363 in Fig. 9 and the lead line for element 364 in Fig. 11 of the drawings appeared, to the undersigned, to be incorrect. The two submitted replacement sheets of drawings are believed to correct those two minor errors, again without the addition of any new matter.

In accordance with the present invention, as recited in independent claims 47 and 52 there is provided a roller that is adapted for use in an offset printing press in at least one of an inking system and a dampening system. As may be seen in Fig. 9, two such rollers 329 and 330 are depicted. As is shown in Fig. 2 these are dampening rollers. Roller 329 is described in the Substitute Specification as a dampening system ink distribution roller. It is more specifically described as a traversing chromium roller. Roller 330 is described as a dipping roller. It dips into a reservoir of dampening fluid, as shown at 332 in Fig. 3. It is to be understood that these rollers are representations of a number of such rollers which could be used in either the inking system or the dampening system of an offset printing press.

The discussion of the support of each of these rollers starts generally at paragraphs 0074 of the Substitute Specification. As is there described, and as depicted in Fig. 9, the two rollers 329 and 330 are supported between spaced frames or frame walls 352 and 353. As may be seen in Fig. 9, the two rollers are supported by pivot arms which will be described in greater detail in subsequent paragraphs of the Substitute Specification, and which are shown in greater detail in Figs. 11 and 12.

The Examiner's attention is now directed to the portion of the Substitute

Specification starting at paragraph 0078 and continuing to paragraph 081. Initially, as may be seen perhaps more clearly in Fig. 12, each of the two rollers 329 and 330 is supported at both of its ends by levers. Specifically, levers 364 support roller 329 and levers 366 support roller 330. Each of these levers is supported for pivotal movement about its own respective pivot point. The pivot location for lever 364 is indicated at S329, which is also the axis of rotation of roller 330. The pivot shaft for lever 366 is location at S330. Each of these levers is provided with its own lever drive mechanism. As may be seen in Fig. 11, the lever drive mechanism for lever 364 is indicated at 372. The lever drive mechanism for lever 366 is indicated at 373. Both of these lever drives are depicted as hydraulic or pneumatic piston/cylinder assemblies but could be other assemblies.

Again referring to Fig. 12, a rotary drive 367 is provided for roller 329. A similar rotary drive 368 is provided for roller 330. As is discussed in paragraph 0079, each of these drive mechanisms 367, 368 is connected with its respective one of the pivotable levers 364, 366 and is thus moved, together with the roller 329, 330 that it drives. The two drive motors 367, 368 are shown in Fig. 12 and also in Fig. 13 as being connected to their respective rollers 329, 330 through angle gear sets, as is depicted schematically in Fig. 13. Their purpose is to allow the drive motors 367, 368 to not extend out to a great distance beyond the side frame.

As is described in paragraphs 0082 of the Substitute Specification, and as may be seen in Fig. 14, the roller 329, which is described in the Substitute Specification as a traversing chromium rollers, is provided, at its end opposite to its drive motor end, with

a traversing assembly. The purpose of this traversing assembly is to allow roller 329 to also move in a direction that is parallel to the axis of rotation of the roller. The traversing drive is identified generally at 374 and is depicted as including an inner bushing 381 and an outer sleeve 378. The outer sleeve 378 is fixed against rotation by being connected to lever 364. It carries a stop or cam track follower 401. The inner bushing 381 is supported for rotation with the roller 329 and carries a cam groove 400. As the roller 329 is caused to rotate by its drive motor 367, the relative rotation between the inner bushing 381 and the outer sleeve 378 results in a traversing movement of the roller 329. The period of this oscillation can be controlled by a pair of intermittently engaging gears on the outer surface of an annular gear 380 and the inner surface of the reduced diameter portion of the outer sleeve 378. The other end of the roller 329 has, as is depicted in Fig. 13, a coupling assembly, generally at 377, which allows the roller to move in its traversing direction. The roller 329 is thus able to both rotate and oscillate or move traversely using drive assemblies that are movable with the roller in a direction that is generally perpendicular to the axis of rotation of this roller.

In the first Office Action on the merits of June 25, 2009, in which the time for response is being extended concurrently for one month, claims 61-68 were withdrawn from further consideration as being drawn to a non-elected invention. Those claims have now been cancelled. Applicants again expressly reserve the right to file one or more divisional patent applications directed to those cancelled claims.

Claims 47-60 were objected to as having several informalities. The word "rotatory" was objected to as not being a standard term. While that determination by the

Examiner is questioned, since it is defined in Webster's dictionary as something causing rotation, the term has been changed to rotary to advance the prosecution of the application. The typographical error in claim 57 has been corrected. It is believed that these changes overcome the Examiner's objections to the claims.

Claims 47, 48, 50, 54 and 56 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,729,309 to Saterini in view of U.S. Patent No. 4,960,052 to Junghans. Claims 49, 52, 53 and 57-60 were rejected, also under 35 U.S.C. 103(a) over Saterini in view of Junghans and further in view of U.S. Patent No. 5,826,508 to Komori. Claims 51 and 55 were rejected under 35 U.S.C. 103(a) as being unpatentable over Saterini in view of Junghans and further in view of U.S. Published Patent Application No. 2004/0107849 to Christel. For the reasons to be set forth below, it is believed that the claims, as originally filed, and even more clearly as amended are patentable over the combination of references relied on by the Examiner.

Referring initially to the primary reference to Saterini, it must first be noted that this device is not an offset press. Instead, it is an imprinter in the nature of a flexographic printing press. The differences between such a press and the offset press in which the roller of the subject application finds use are substantial. An understanding of these differences makes it quite clear that the Saterini reference is not particularly relevant to the subject invention. In the Saterini device, the imprinter, which is shown generally in Fig. 1, is usable to print on one side of a web 2 as that web passes between a counterpressure cylinder 6 and one or two printing cylinder 16s and 16d. Typically, only one of these printing cylinder 16s or 16d would be in engagement with

the web 2 and the counterpressure cylinder 6 at any time.

The Examiner points to column 5, lines 4-47 and to Fig. 1 of the Saterini reference as support for her assertion that the reference teaches a roller adapted for use with at least one of an inking system and a dampening system and including a drive motor adapted to rotate the roller about an axis of rotation. That portion of the Saterini reference is also asserted as providing support for a teaching of a means for supporting the roller and the drive motor for movement in a direction perpendicular to the axis of rotation.

A careful review of the section of the Saterini reference cited and relied on by the Examiner fails to support the assertions made by the Examiner in her discussions of this reference. The portion of the Saterini specification referred to by the Examiner is directed to a discussion of the counterpressure cylinder 6 and the two printing cylinders 16s and 16d. The counterpressure cylinder 6 is supported by a lever 7 that is pivotable about a pivot axis 8. This allows the counterpressure cylinder 6 to be moved into contact with either one of the two printing cylinder 16s or 16d. The counterpressure cylinder 6 is clearly not a roller that is usable in either an inking system or a dampening system of an offset rotary printing press. It is the cylinder that supports the web 2 while that web is being printed by direct contact with one of the printing cylinders 16s or 16d.

There is a discussion in column 5, lines 4-47 of Saterini of a "...motor means...". However, that motor means is disclosed as being usable to pivot the lever 7 between its two positions that will bring the counterpressure cylinder 6 into contact with either one or the other of the printing cylinders 16s or 16d. This "motor mean" is described as

being two fluid operated cylinder and piston units 51, 52. There is provided a drive for the counterpressure cylinder 6. This is depicted in Fig. 2 and is described at column 8, starting at line 37. It is not readily apparent to the undersigned, and the specification of the Saterini reference does not appear to teach or to suggest that the motor 74 is supported with the counterpressure cylinder 6 for movement of both the cylinder and the motor in a direction perpendicular to the cylinder's axis of rotation. While the cylinder itself is so movable, the motor 74 does not appear to be described or depicted as being movable.

In each of the several embodiments of the imprinter shown in the Saterini reference, there is a device that is usable to supply ink to the surface of the printing cylinder. It is believed that rollers of such an ink supply device would be the type of roller that should be considered in the Saterini reference instead of the counterpressure cylinder 6. As seen in Fig. 1 of Saterini, there are provided ink holders 25 and 26 for use in supplying ink to rubber layered cylinders 27 and 28. These rubber layered cylinders, in turn, supply ink to anilox or screen-surfaced rollers 29 and 30 that are in direct contact with the respective printing cylinders 16s and 16d. Each of these cylinders 27; 28 and anilox rollers 29; 30 is provided with its own drive motor 96; 93, as seen in Fig. 2. Again, these motors are not described or depicted as being movable. It is also to be noted that anilox rollers and fountain rollers, such as the ones depicted at 29; 30 or 27; 28 of the Saterini reference are not intended to be movable transversely. Such a traversing movement is intended to distribute ink evenly along a surface of another roller that cooperates with the traversing roller. Fountain rollers and anilox

rollers do not display such a feature.

The secondary reference to Junghans is directed to an offset printing device. The differences in structure and in modes of operation of a flexographic imprinter, as described in Saterini, and an offset printing press, as directed in Junghans raises serious questions with respect to their possible combinability. In the Junghans reference, the Examiner has asserted that there is a description, at column 6, lines 1-23, and a depiction in Fig. 2 of a roller with means for supplying that roller for movement in air axial direction.

The discussion at column 6, lines 1-23 of the Junghans reference is directed to the provision of doctor roll 10 that is usable to receive ink from an intermediate roller 9. The intermediate roller 9 is placed in contact with an ink fountain roller 2. When ink is removed from the ink fountain 1 by the ink fountain roller 2, that ink is initially transferred to the ink film roller 3. As may be seen in Fig. 1, and as is discussed at column 5, starting at line 40 of the Junghans reference, approximately ¾ of the ink supplied to the film roller 3 is removed from the roller by the intermediate roller 9 and is transferred to the doctor roller 10. That ink is removed form the doctor roller 10 by the doctor blade 11 and is returned back to the ink fountain 1. The process is usable to control the amount of ink that the film roller 3 supplies to the inking unit roller 5.

It is admitted that the doctor roller 10 of Junghans is described as being axially movable. This is clearly depicted at Fig. 2. This is to facilitate washing of the doctor roller 10, as is discussed at column 6, lines 5 and 6 of Junghans. It is also to be noted that there is no discussion in Junghans of any drive for the doctor roller 10 or any

means for supporting the doctor roller 10 and its non-existent drive motor for movement in a direction perpendicular to an axis of rotation of the doctor roller 10.

It would not be apparent to one of skill in the art that the Saterini and Junghans patents could be combined in any way. Both are directed to printing presses. That is the extent of their similarity. The Saterini reference describes a flexographic imprinter in which a fountain roller 27 or 28 supplies ink to an anilox roller 29 or 30 which is in direct contact with the printing cylinder 16s or 16d. Where would the doctor roller 10 of the Junghans reference fit into the Saterini arrangement? The answer is that it would not. The purpose of the doctor roller 10 of Junghans is to return excess ink to the ink fountain 1. There is no place in the Saterini device for such a structure. Any combination of Saterini and Junghans that might be reasonably possible would still result in the inclusion of a separate doctor roller 10 of Junghans in some type of engagement with the anilox roller of Saterini to return excess ink to a non-existent ink fountain. The embodiments of Saterini which are shown in Figs. 3 and 4 thereof are even less capable of being combined with the Junghans device. It is thus believed that the rejection of independent claim 47, as being obvious over the combination of references is not sustainable.

Claim 47, as filed and more clearly as amended, recites a roller adapted for use in at least one of an inking system and a dampening system of an offset printing press. Saterini is not an offset printing press. Claim 47 recites means for supporting the roller for traversing movement in an axial direction of the roller. Saterini has no such teaching. Claim 47 recites a rotary drive motor adapted to rotate the roller about an axis of

rotation. Saterini appears to show this. However, claim 47 also recites means for supporting the roller and the drive motor for movement of both in a direction which is perpendicular to the axis of rotation of the roller. It is clear that Saterini does not show or suggest this feature. As discussed above, there is no possibly operable device that could result from a combination of Saterini and Junghans. Anilox rollers are not intended to move axially. They carry ink in spaced pockets on their surface. It would not be beneficial to try to move such a roller axially. The combination suggested by the Examiner in her rejection of claim 47 is not a workable combination, goes against the teachings of the two references, and would not result in any sort of an operative device. It is thus believed that claim 47, as currently pending, is patentable over the references cited and relied on by the Examiner.

Independent claim 52 was rejected over Saterini in view of Junghans and further in view of Komori. The Examiner asserted that the combination "...teach all that is claimed, as described above.". Claim 52 is similar to claim 47 in its recitation of a roller for use in an offset rotary printing press. It includes a recitation of a roller body with spaced ends. It further recites a traversing gear at one end of the roller body and adapted to move the roller in a direction of the axis of rotation of the roller body. There is further recited a rotary drive mechanism. A coaxial drive shaft and a coupling are provided in the drive mechanism. The drive shaft is fixed in place in a direction of the axis of rotation of the roller body. The coupling is adapted to transmit torque from the drive mechanism to the roller and to permit the axial transverse movement between the drive shaft and the roller body.

The combination advanced by the Examiner does not teach or suggest such a structure. In Saterini none of the rollers 27, 28, 29, 30 have the type of coupling recited in currently amended claim 52. The rollers in Saterini specifically are not intended to be movable in an axial direction. As was discussed above, it would not be suitable for an anilox roller or for a fountain roller to move axially. There would not be any reason to provide a coupling such as is recited in currently amended claim 52 in the Saterini device.

The secondary reference to Junghans, as was discussed above in connection with claim 47, teaches an axially movable doctor roller 10 whose purpose is to return ink to an ink fountain. It would not be appropriate to combine Junghans with Saterini for the reasons set in connection with claim 47. The axial displacement means 34 of Junghans is usable to displace the doctor roller 10 for cleaning purposes. That is not the same type of use as the traversing gear recited in claim 52. The asserted combination of Saterini and Junghans is fatally flawed.

The other secondary reference to Komori shows an inking apparatus for a printing press. Ink is supplied from an ink fountain 13 to an ink fountain roller 10. Ink is carried from the ink fountain roller 10 to an oscillating roller 15 by an ink ductor roller. That ink ductor roller moves back and forth between a contact position with the ink fountain roller 10 and a contact position with the oscillating roller 15 as a result of a pivotal movement of cam levers 21. While there is a teaching of a traversing gear at the end of the oscillating roller 15, such a teaching is not sufficient to provide the other features of the currently amended independent claim 52 which are missing from

Saterini and Junghans. The combination cited and relied on by the Examiner fails, for example, to show a traversing gear on one end of the roller body and a rotary drive mechanism on the second end of the roller body. Saterini shows a drive mechanism on one end of the roller body. Junghans shows a traversing gear on one end of the roller body. It would not be readily apparent to combine the two because anilox rollers and fountain rollers are not expected to move axially. Axial movement is reserved for ink distribution rollers. Saterini has no such rollers.

Claim 52 further recites a coaxial drive shaft and coupling of the type depicted in Fig. 13 of the drawings of the subject application. There is no equivalent structure shown in any of the Saterini, Junghans or Komori references. Komori does not disclose, or suggest any type of coaxial drive shaft and coupling. It is thus not apparent to the undersigned how the combination of these three references could "...teach all that is claimed...". For these reasons, it is believed that currently amended claim 52 is also patentable over the prior art cited and relied on.

All of the rest of the claims which are pending in the subject application depend from either one or the other of believed patentable, currently amended independent claims 47 or 52. These dependent claims are thus also believed to be allowable.

The additional prior art cited by the Examiner, as set forth in the PTO-892 form, but not relied on in the rejections of the claims, has been noted. Since this prior art was not applied against any of the claims, no further discussion thereof is believed to be required.

SUMMARY:

The Substitute Specification has been amended to provide uniformity of terminology and to correct several minor typographical errors. Two of the drawings have been corrected to properly position lead lines. It is believed that these changes do not constitute any new matter.

Independent claims 47 and 52, as well as various ones of the dependent claims, have been amended. It is believed that the claims which are now pending in the subject application are patentable over the prior art cited and relied on, taken either singly or in combination. Allowance of the claims, and passage of the application to issue is respectfully requested.

Respectfully Submitted,

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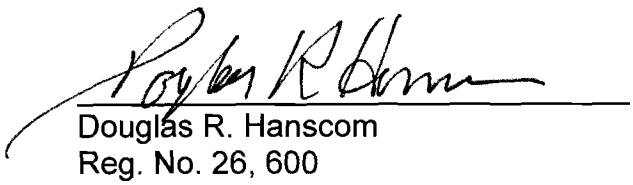

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